

Blue
Work Order ID 81778

81778

Page 1

March-19-12 1:19:33 PM

Item ID: D206-642-341

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Replacement Skidtube

Stop *NS2*

Start Date: 19/03/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 15/06/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/03/19

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D2650

F

100

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and create labels per PPP-D206-642-341

CHG003

SCRAP

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 81778***81778***

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March-19-12 1:19:33 PM

Item ID: D206-642-341

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N900040100Setup Start ***NS1***

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Item Name: Replacement Skidtube

Stop ***NS2***

Start Date: 19/03/2012 Start Qty: 1.00

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Cust Item ID:

Required Date: 15/06/2012 Req'd Qty: 1.00

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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

110

0.00

110

Skidtubes

0.00

Skidtubes

Memo

Skidtubes

1-Deburr Fwd edge of tube

2-Remove ridge on inside of Fwd edge of tube as per Dwg D2650

3-Weld Fwd Cap as per Dwg D2650. Use aluminum rod. Grind D2647 to fit as required.

A/R Aluminum Rod

4-Grind weld flush to cap on top surface only.

5-Cut aft end to length as per dwg D2650

6-Drill pilot holes using drill Jig DT8168A (A,& B) and DT8025. Open to Ø0.312"

7-Drill holes for wearplates using DT 8028-5. Open to Ø 0.297".

8-Open Aft Cap Hole using #6 Drill Bit

9-Open holes for Tow Ring to Ø0.625" as per Dwg D2650, D2650-5 Drilling Detail

10-Remove inner indexing ridge on aft end of skidtube as per Dwg D2650

11-Deburr and Blow out all chips from inside the tube

CF 12-3-14

De 12/04/12

Pto →

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D200-642-341 PAR #: _____ Fault Category: Landing Gear / Skid tube NCR: Yes No DQA: Not Date: 12/07/19
 Resolution: _____ Disposition: Scrap QA: N/C Closed: Yes Date: 12/7/24

NCR: <u>12-15912</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>12/04/18</u>	<u>#110.9</u>	After Drilling out tow ring hole it was notice operator Pull worn drill. Drilled it to 0.636"-0.640". R.C. 10A / used worn drill	<u>W</u> <u>12-7-17</u>	<u>Scrap, Destroy</u> <u>NO replace.</u>	<u>R</u> <u>12/07/17</u>	<u>12-7-17</u>	<u>U</u> <u>12.07.18</u>	<u>S</u> <u>12/04/18</u>

NOTE: Date & initial all entries

81778

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N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 19/03/2012 **Start Qty:** 1.00 ***1***

Required Date: 15/06/2012 **Req'd Qty:** 1.00 *** 1 ***

Reference:

Approvals: _____ **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

**Insp.
Stamp**

0.00

115

0.00

Quality Control

0.00

120

0.00

Hand Finishing

0.00

125

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries

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Item ID: D206-642-341

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N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Replacement Skidtube

Start Date: 19/03/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 15/06/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130

0.00

130

Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Open holes to finished size as per Dwg D2650, D2650-5 Drilling Detail
(without cutting fluid)

2-Countersink crossbolt spacer holes as per Dwg D2650(without cutting fluid)

3-Deburr. Blow out chips. Grind alodine off around crossbolt spacer.

4-Bond D2654-5 web in place as per QSI 015Ensure holes line upAllow 12 Hrs.
cure time before cutting

Start Date: _____ Time: _____

Finish Date: _____ Time: _____

A/RSikaflex-291 _____

Sikaflex expiry date: _____

140

QC5- Inspect part completeness to step on W/O

0.00

140

QC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 19/03/2012 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 15/06/2012 **Req'd Qty:** 1.00 *** 1 ***

Customer:

Reference:

Approvals: _____ **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run** **Start** ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

0.00

150

Skidtubes

0.00

Skidtubes

Skidtubes

Memo

I-Prep per QSI 005 and Insert cross bolt spacers D2649. Weld as per QSI 004 and Dwg D2650. Remember to back drill each hole to 0.25" before welding the other side. Use aluminum rod.
A/RAluminum Rod

2-Grind welds flush as per Dwg D2650. Masking Tape access to inside of the Skidtube

3-Counterbore 5/16" x 0.750" deep as per Dwg D2650Deburr

4- Install nut plate as per dwg

0.00

170

QC10- Inspect visual per QSI004- ground welds

0.00

QC

Memo

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Start Date: 19/03/2012 Start Qty: 1.00

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Required Date: 15/06/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start ***NR1***

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180

QC5- Inspect part completeness to step on W/O

0.00

180

QC

Memo

0.00

Quality Control

190

Pressure Wash per QSI005 4.3

0.00

190

HandFinish

Memo

0.00

Hand Finishing

Brush alodine tube on crossbolt spacer area, do not acid etch, do not dip tube in tank.

195

Spray Painting per QSI005 4.2

0.00

195

SprayPaint

Memo

0.00

Spray Painting

PRIME B _____
DELFLEET BLUE B _____
CLEAR DELFLEET B _____

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 81778***81778***

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Item ID: D206-642-341

Accept

N9000040100Setup Start ***NS1***

Revision ID:

Item Name: Replacement Skidtube

Stop ***NS2***

Start Date: 19/03/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 15/06/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

205

QC14- Inspect Spray Paint

0.00

205

QC

Memo

0.00

Quality Control

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Revision ID:

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Stop ***NS2***

Start Date: 19/03/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 15/06/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

220

0.00

220

HandFinishing

0.00

HandFinish

Memo

Hand Finishing

1-Install inserts & wearpads as per dwg D2922. Use a drop of Sikaflex inside insert holes before installing wearpad/wearplate.

A/RSikaflex-291

Sikaflex expiry date:

2-Install O-Rings D2651-3 on plugs D2651-1 with Petroleum Jelly and install plugs as per Dwg D2650. Clean excess adhesive

3-Install MS27039-4-06 Screw

4-Inspect for foreign object per QSI 024

5-Install D2646 Aft Cap and seal with SikaflexClean excess adhesive

A/RSikaflex-291

Sikaflex expiry date:

6-Wing Walk as per Dwg D2650-5 and QSI 005 4.4

Batch:

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Work Order ID 81778***81778***

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Item ID: D206-642-341

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N900040100Setup Start ***NS1***

Revision ID:

Item Name: Replacement Skidtube

Stop ***NS2***

Start Date: 19/03/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 15/06/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

230

QC3- Inspect Part Finish

0.00

230

QC

Memo

0.00

Quality Control

240

QC5- Inspect part completeness to step on W/O

0.00

240

QC

Memo

0.00

Quality Control

250

Packaging

0.00

250

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D206-642-341

Location: _____

PPP Rev: _____

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Work Order ID 81778***81778***

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Item ID: D206-642-341

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N900040100Setup Start ***NS1***

Revision ID:

Item Name: Replacement Skidtube

Stop ***NS2***

Start Date: 19/03/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 15/06/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
260	QC21- Final Inspection - Work Order Release	0.00							
260									
QC	Memo	0.00							
Quality Control									

MF
12-07-18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Picklist Print

March-19-12 1:19:38 PM

Page 1

Work Order ID: 81778

81778

Parent Item: D206-642-341

D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 19/03/2012

Required Date: 15/06/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev: H05.10.11Added D3429-1 per CHG004KJ/CP/JLM
IPP Rev:I 08-09-29 revF as per dwg DD verified by:EC Est Rev:J 09-
03-02 as per DSI9440 rev.a DD verified by:EC IPP rev K 10.08.03 chg
ms27039-1-08 for "C" type EC verified by DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN960JD416	NAS1149D0463J	Purchased	No				Each	14.0000		1			
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AN960JD416

Washer

**

Location	Loc Qty	Loc Code
----------	---------	----------

ST351	14	
-------	----	--

116289	14	
--------	----	--

CCR264SS3-3	Purchased	No				Each	603.0000		2				
-------------	-----------	----	--	--	--	------	----------	--	---	--	--	--	--

CCR264SS3-3

Cherry Rivet

**

Location	Loc Qty	Loc Code
----------	---------	----------

ST331	603	
-------	-----	--

113973	2	
--------	---	--

117849	125	
--------	-----	--

119017	476	
--------	-----	--

CR3212-4-03	Purchased	No				Each	1,460.000		2				
-------------	-----------	----	--	--	--	------	-----------	--	---	--	--	--	--

CR3212-4-03

Cherry Rivet

**

Location	Loc Qty	Loc Code
----------	---------	----------

FP002	470	
-------	-----	--

114859	470	
--------	-----	--

ST331	990	
-------	-----	--

110139	2	
--------	---	--

119017	988	
--------	-----	--

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Parent Item: D206-642-341

D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 19/03/2012

Required Date: 15/06/2012

Start Qty: 1.00

Required Qty: 1.00

D2620

Manufactured No

Each

28.0000

1

D2620

Skidtube, 206 Skidtube

**

1

CF 12-4-13

~~B80028~~ B82028

Location

Loc Qty

Loc Code

LG

28

77999

1

79543

2

79544

2

79545

2

81365

11

81366

10

D2647

Manufactured No

Each

47.0000

1

D2647

Cap

**

BF 12-04-16

Location

Loc Qty

Loc Code

LG002

47

75482

47

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Parent Item: D206-642-341

D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 19/03/2012

Required Date: 15/06/2012

Start Qty: 1.00

Required Qty: 1.00

D2649

Manufactured No

Each

1,431.000

19

D2649

Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG

974

77574

2

79502

403

79503

399

79504

14

79565

156

LG001

457

65317

1

68224

2

68507

11

71355

2

72704

2

72841

11

73390

8

73857

21

73858

53

73859

4

73860

4

78020

6

78583

2

79566

330

D2654-5

Manufactured No

Each

14.0000

1

D2654-5

Web

Location

Loc Qty

Loc Code

LG

14

80057

8

81326

6

March-19-12 1:19:38 PM

Shop Packet Print

Page 3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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81778

Parent Item: D206-642-341

D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 19/03/2012

Required Date: 15/06/2012

Start Qty: 1.00

Required Qty: 1.00

D2680-041

Manufactured No

Each

148.0000

1

D2680-041******

Nut Plate

LocationLoc QtyLoc Code

ST013

116

78016

116

ST019

32

76790

32

MS27039C1-08

Purchased No

Each

1,594.000

56

MS27039C1-08******

SCREW

LocationLoc QtyLoc Code

FP002

1

116022

1

ST292

1500

120308

1000

121068

500

ST293

93

116373

3

118077

14

119309

76

ALS4-1032-130

Purchased No

220

Each

4,213.000

54

54

ALS4-1032-130******

Insert

LocationLoc QtyLoc Code

ST280

283

119084

116

120671

167

ST281

3930

120807

1930

120837

2000

March-19-12 1:19:38 PM

Shop Packet Print

Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

March-19-12 1:19:38 PM

Page 5

Work Order ID: 81778

81778

Parent Item: D206-642-341

D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 19/03/2012

Required Date: 15/06/2012

Start Qty: 1.00

Required Qty: 1.00

AN960C10L NAS1149C0332 Purchased No

220

Each

0.0000

54

54

*AN960C10I *

**

washer

AN960JD10L NAS1149D0332J Purchased No

220

Each

0.0000

2

2

*AN960JD10I *

**

Washer

D2646 Manufactured No

220

Each

125.0000

1

1

D2646

**

Aft Cap

Location

Loc Qty

Loc Code

FP002

125

62678

5

68280

5

70945

1

71070

2

73294

1

73825

2

78018

26

79500

33

79562

50

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Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 6

Work Order ID: 81778

81778

Parent Item: D206-642-341

D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 19/03/2012

Required Date: 15/06/2012

Start Qty: 1.00

Required Qty: 1.00

D2651-1

Manufactured No

220

Each

551.0000

14

14

D2651-1

**

Plug

Location

Loc Qty

Loc Code

FP001

827

57869

1

66445

10

69018

2

70827

2

70839

8

71037

8

77559

30

78584

188

79234

278

FP-A

-276

77559

1

78124

23

D2651-3

Manufactured No

220

Each

1,888.000

14

14

D2651-3

**

O-Ring

Location

Loc Qty

Loc Code

FP001

16

61962

12

73828

4

FP-A

1872

78126

1872

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

March-19-12 1:19:38 PM

Page 7

Work Order ID: 81778

81778

Parent Item: D206-642-341

D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 19/03/2012

Required Date: 15/06/2012

Start Qty: 1.00

Required Qty: 1.00

D3535-11

Manufactured No

220

Each

21.0000

1

1

D3535-11******

Wearshoe

LocationLoc QtyLoc Code

FP001

21

71284

6

79058

15

D3535-23

Manufactured No

220

Each

35.0000

1

1

D3535-23******

Wearshoe

LocationLoc QtyLoc Code

FP001

35

73314

6

74508

11

80330

18

D3535-35

Manufactured No

220

Each

32.0000

1

1

D3535-35******

Wearshoe

LocationLoc QtyLoc Code

FP001

32

67598

1

70815

1

78873

13

79849

1

80332

16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 8

Work Order ID: 81778

Parent Item: D206-642-341

Parent Item Name: Replacement Skidtube

81778

D206-642-341

Start Date: 19/03/2012

Required Date: 15/06/2012

Start Qty: 1.00

Required Qty: 1.00

D3536-11

Manufactured No

220 Each

28.0000

1

1

D3536-11

Gasket

**

Location

Loc Qty

Loc Code

FP002

28

46649

1

46715

4

65574

1

80006

22

D3536-23

Manufactured No

220 Each

42.0000

1

1

D3536-23

Gasket

**

Location

Loc Qty

Loc Code

FP002

42

43406

1

73312

3

74510

12

80334

26

D3536-35

Manufactured No

220 Each

32.0000

1

1

D3536-35

Gasket

**

Location

Loc Qty

Loc Code

FP002

32

74511

5

80335

27

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Picklist Print

March-19-12 1:19:38 PM

Page 9

Work Order ID: 81778

81778

Parent Item: D206-642-341

D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 19/03/2012

Required Date: 15/06/2012

Start Qty: 1.00

Required Qty: 1.00

D3537-1

Manufactured No

220

Each

165.0000

6

6

D3537-1

**

Wearpad

Location

Loc Qty

Loc Code

FP001

104

79833

50

79835

54

FP002

61

69817

5

79834

14

80336

42

D3537-3

Manufactured No

220

Each

14.0000

1

1

D3537-3

**

Wearpad

Location

Loc Qty

Loc Code

FP002

14

74500

9

76986

5

MS27039-4-06

Purchased No

220

Each

185.0000

1

1

MS27039-4-06

**

Screw

Location

Loc Qty

Loc Code

ST292

185

119075

185

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

QTY -1	QTY -3	QTY -5	QTY -7	PART NUMBER	DESCRIPTION
X				D2650-1	SKIDTUBE ASSEMBLY
	X			D2650-3	SKIDTUBE ASSEMBLY
		X		D2650-5	SKIDTUBE ASSEMBLY
			X	D2650-7	SKIDTUBE ASSEMBLY
1	1	1	1	D2600-1-160	EXTRUSION
1				D2654-1	WEB
	1			D2654-3	WEB
		1		D2654-5	WEB
			1	D2654-7	WEB
1	1	1	1	D2646	AFT CAP
1	1	1	1	D2647	CAP
17	18	19	23	D2649	CROSS BOLT SPACER
16	18	14	22	D2651-1	PLUG
16	18	14	22	D2651-3	O-RING
1	1	1	1	D2680-041	NUT PLATE
2	2			D3286-1	DOUBLER
2	2			D3286-3	STUD
42	44	54	60	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, ALS7-1032-130)
2	2	2	2	AN960JD10L	WASHER
2	2	2	2	CCR264SS3-3	RIVET
2	2	2	2	CR3212-4-03	RIVET
2	2	2	2	MS27039-1-08	SCREW
1	1	1	1	MS27039-4-06	SCREW
1	1	1	1	AN960JD416	WASHER
52	52			CR3212-4-04	RIVET

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ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 81778 MCT

12/03/19

RELEASED
08-07-23

REV.	DESCRIPTION	BY	DATE
F	DRAWING UPDATED TO CURRENT STANDARDS. SHT 6 ADDED. ALL SECTION AND DETAIL VIEWS TRANSFERRED TO SHT 6. SHT 1 IN PL PART D2649 QTY UPDATED. SHT 6 SECT C-C GRIND INSTRUCTIONS DELETED FROM NOTE 7 (SEE NCR 239).	AJS	08.08.08
E	REMOVE CBORE, CHG DRILL, ADD CHAMFER	CP	06.03.30
D	REDRAW; INCCRP. DE09136/9153/9163 MOD GROUND HANDLING ON D2650-1/3	CP	04.05.17
C	CHANGE HOLE PATTERN AND FRONT END	DS	97.10.29
B	AS MANUFACTURED CHANGES	DS	97.06.26
A	NEW ISSUE	DS	97.03.25
DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 1 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE REPRODUCED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: -CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
-POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
-BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A
- 8) WELD PER DART QSI 004
- 9) DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- 10) BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015
- 11) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE)
- 12) DRILL Ø0.297 FOR ALS7-1032-130 INSERTS USING TEMPLATE DT8056-1 ON -1 TUBE, DT8056-3 ON -3 TUBE, DT8056-5 ON -5 TUBE, AND DT8056-7 ON -7 TUBE. INSTALL INSERTS AFTER FINISH.
- 13) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

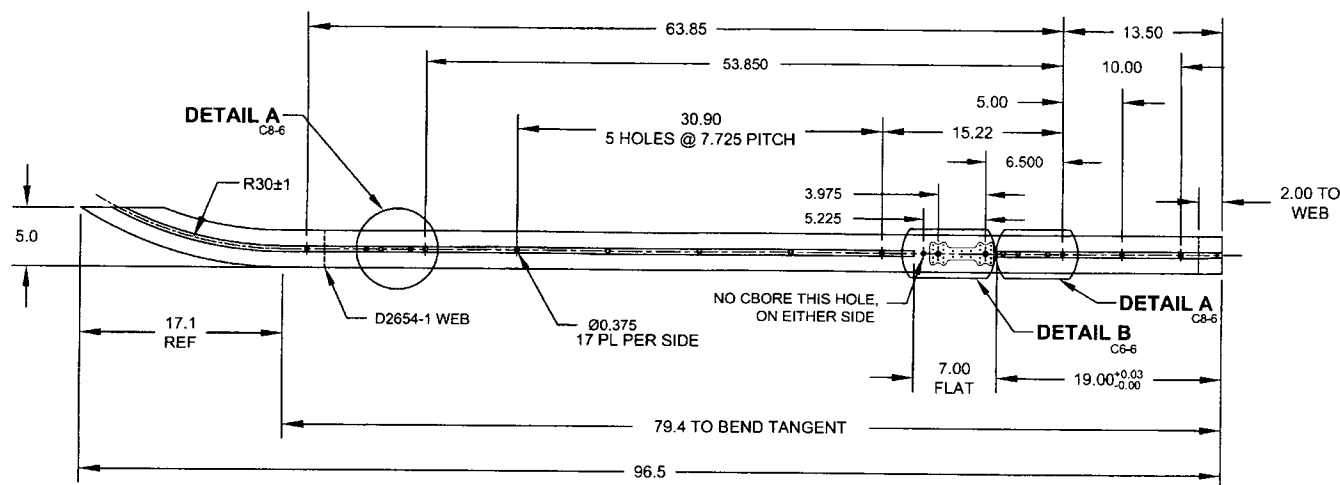
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

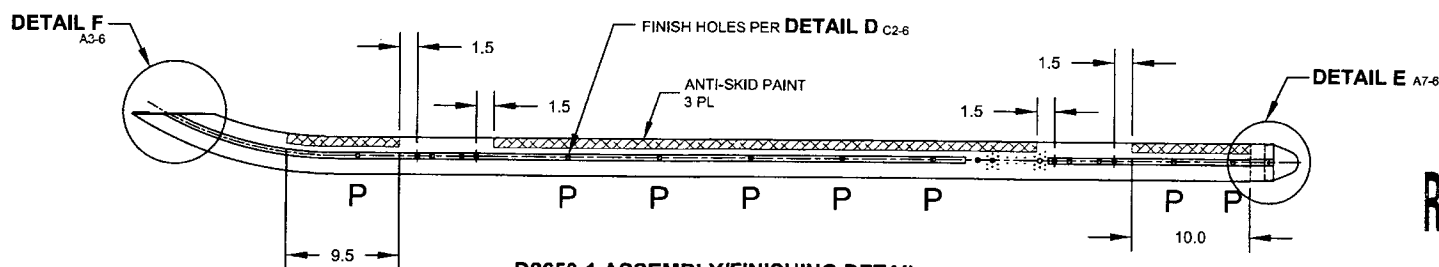
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

81778



D2650-1 BENDING/DRILLING DETAIL



D2650-1 ASSEMBLY/FINISHING DETAIL

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68 09 22 / 112

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 2 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

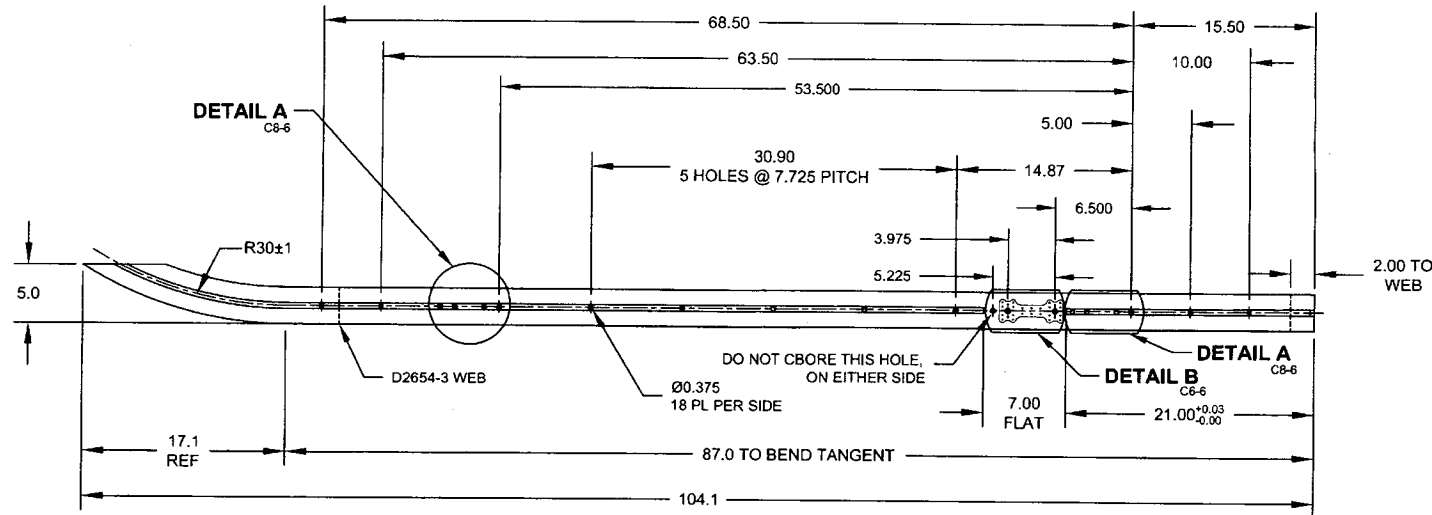
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

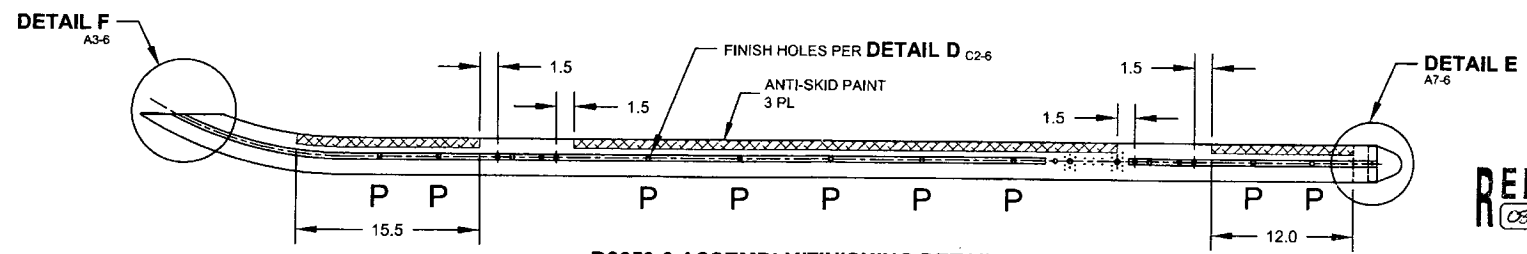
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

81778







D2650-3 BENDING/DRILLING DETAIL



D2650-3 ASSEMBLY/FINISHING DETAIL

RELEASED
08 07 22 114

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 3 OF 6
APPROVED		TITLE	SCALE
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Dart Aerospace Ltd

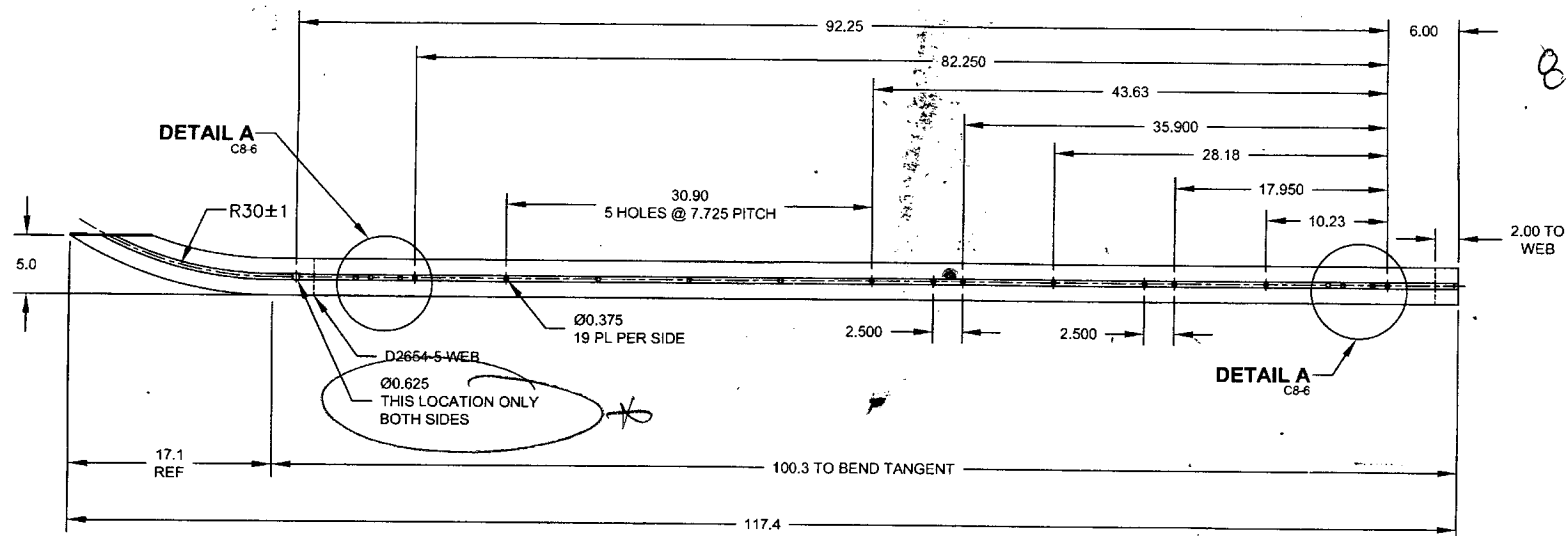
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

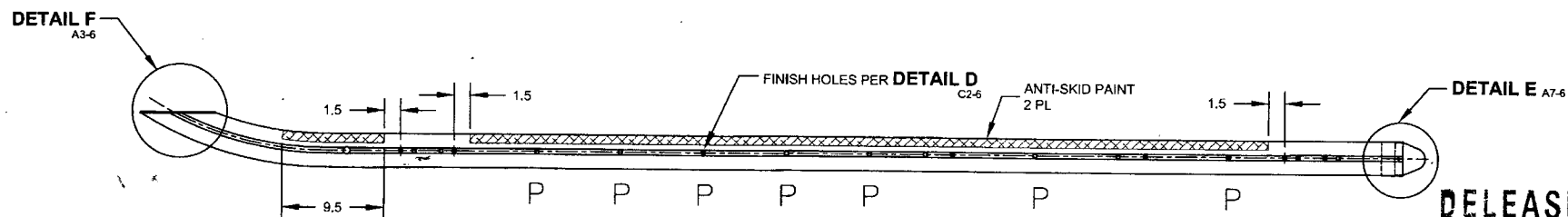
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D2650-5 BENDING/DRILLING DETAIL



D2650-5 ASSEMBLY/FINISHING DETAIL

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED	J	DRAWING NO.	REV. F
MFG. APPR.	J	D2650	SHEET 4 OF 6
APPROVED	J	TITLE	SCALE
DE APPR.	J	206/407 SKIDTUBE ASSEMBLIES	NTS
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08-09-22/10P

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

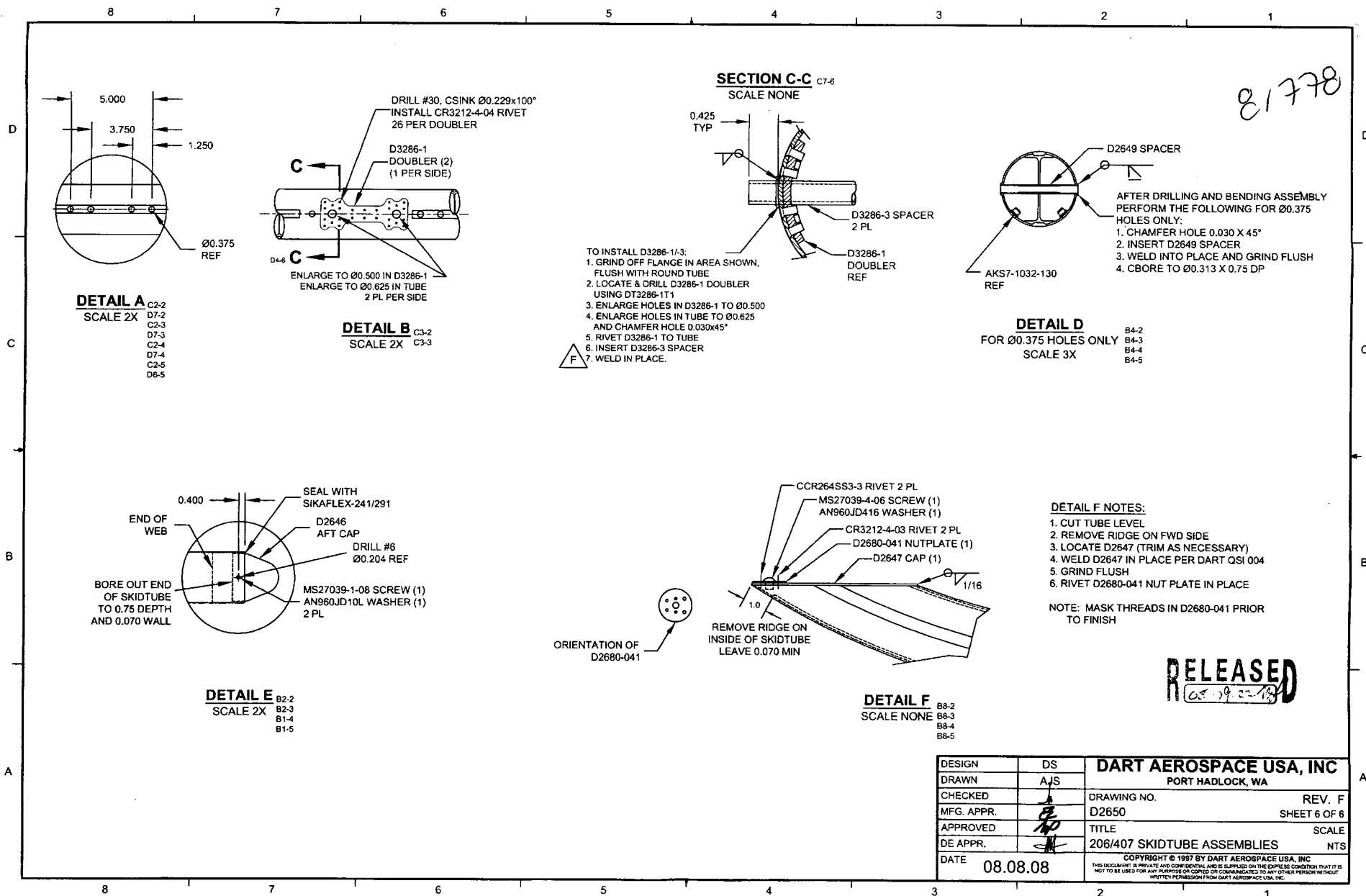
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries